

Central Valley Regional Water Quality Control Board

Staff Report

Extension of Conditional Waiver of Waste Discharge Requirements For Discharges Related To Timber Harvest Activities

April 2005

ISSUE

The Central Valley Regional Water Quality Control Board (Regional Board) in January 2003 adopted a Conditional Waiver Of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities (Waiver). The Waiver established eligibility criteria and conditions for timber harvest activities conducted on private lands under an accepted Notice or approved Timber Harvest Plan (THP) submitted to the California Department of Forestry and Fire Protection (CDF) and timber harvest and fuels reduction projects conducted by the US Department of Agriculture, Forest Services (Forest Service).

The Waiver, as adopted, set a termination date of 30 January 2005. The Regional Board, on 28 January 2005 after a public hearing, adopted Resolution R5-2005-0004 that extended the Waiver's termination date to 30 June 2005. Resolution R5-2005-0004 also directed staff to schedule a public hearing for the April 2005 regular meeting to consider renewing the Waiver and to add conditions that comply with CWC Section 13269 (as amended in January 2004). Staff recommends that the Regional Board extend the Waiver for an additional 5 years with minor proposed modifications to Attachment A (Waiver criteria and conditions), the addition of Attachment B (new monitoring and reporting conditions) and adoption of an Implementation, Effectiveness and Forensic Monitoring and Reporting Program (MRP) that will be required of all (except very minor) proposed timber harvest activities. The proposed resolution includes those modifications. To adopt the Resolution and Waiver, CWC Section 13269 requires that the Regional Board find that the Waiver *"is consistent with any applicable state and regional water quality control plan and is in the public interest."*

REPORT OUTLINE

Following are discussion items to be addressed in this staff report. Additional information may also be presented during staff's presentation.

- Waiver Background (Waiver history, SWRCB petition, litigation status)
- State of Timber Harvesting in Region (private lands and Forest Service federal lands)
- Water Quality Issues (watershed conditions, available data, difficulty of monitoring)
- California Environmental Quality Act (CDF regulatory process, Cumulative Effects)
- Present Waiver Program (staff regulatory effort, staffing levels)

- Waiver Effectiveness (“proactive vs. reactive approach”, efficiency, enforceability)
- Existing Monitoring Efforts
- Timber Activities Monitoring Issues (types, effectiveness)
- Waiver Enrollment Fees
- Proposed Resolution
- Proposed Revisions to Waiver (Attachment A)
- Proposed Monitoring Conditions (Attachment B)
- Proposed Monitoring and Reporting Program
- Summary
- Recommendation

WAIVER BACKGROUND

The Waiver was initially adopted in January 2003 (Resolution No. R5-2003-0005) following several workshops and public hearings where lengthy testimony was heard. The Waiver was initially developed as a collaborative effort by staff of the four regional boards where timber harvest activity is significant. Waiver criteria and conditions were modified by staff (in response to agency, industry and public input) and by the Regional Board (following testimony and comments at the hearing) prior to adoption. The resulting Waiver provided a regulatory mechanism that assisted staff in the review of timber harvest proposals and in the regulation of waste discharges associated with timber harvesting. The main premise of the Waiver was to augment, with respect to water quality, the existing (and generally well-staffed) timber harvest regulatory programs administered by CDF and the USFS. This augmentation is accomplished by requiring compliance with detailed and category specific eligibility criteria and conditions in Attachment A and by requiring implementation of any and all additional management measures necessary to comply with the Regional Board’s Basin Plans. Furthermore, the Waiver provides an effective mechanism for staff to regulate a very large number of potential discharges (up to 2000 timber harvest projects annually). Since the Regional Board does not approve timber harvest activities, its authority is limited to regulating discharges of waste that could affect the quality of waters of the state.

The Waiver was soon petitioned to the State Water Resources Control Board (State Water Board) by the timber industry (claiming the Waiver was unnecessary and burdensome) and by the environmental community (claiming the Waiver was inadequate and that adoption of WDRs was necessary). The State Water Board, in January 2004, adopted Order No. WQO 2004-0002 which presented the State Water Board’s findings and conclusions with respect to the issues raised in both petitions. The State Water Board essentially affirmed the appropriateness of the Waiver. WQO 2004-0002 summarizes the position of the State Water Board by stating: *“The Waiver includes specific criteria to ensure compliance with requirements of the Basin Plan and to prevent discharges that may substantially impact water quality. Further, the Regional Board’s actions were consistent with State Board policies and procedures and the terms of the Waiver do not exceed the Regional Board’s statutory authority.”*

The environmental petitioners subsequently filed suit in superior court seeking to set aside the Waiver and the State Water Board order. At the time of this Staff Report, the parties are awaiting the judge's ruling.

The Regional Board in January 2005 adopted Resolution R5-2005-0004 that extended the Waiver to 30 June 2005 and directed staff to develop and present for consideration at the April 2005 meeting a new or renewed Waiver that fully complies with 2004 amendments to CWC Section 13269. The January 2004 resolution also directed staff to include general monitoring conditions as part of the new or renewed waiver to comply with CWC Section 13269, as amended.

STATE OF TIMBER HARVESTING IN REGION

Silvicultural activities or timber harvesting operations are of significant economic importance in the Central Valley Region. Approximately 50 percent of the State's timberlands are located in this region and the commercial harvest (total timber volume cut) is slightly more than 1 billion board feet (net). This represents approximately 45 percent of the statewide harvest of commercial timber and equals the harvest rate in the North Coast Region.

To harvest timber, ground (soil) is disturbed by the construction of roads, stream crossings, landings where logs are loaded onto trucks, skid trails and other areas where equipment hauls or drags logs, and areas where heavy equipment is used for "site preparation" prior to replanting trees. Although there are numerous silvicultural methods employed in the woods, they can be broken down into two major types; "uneven-aged" stand management (selection or thinning) and "even-aged" stand management (clear-cut or its equivalent). Historically, both timberland management methods have been used extensively in the Region (USFS has allowed even-aged management in the past). The timber industry maintains that "even-aged" management does not result in increased discharge of sediment and other pollutants or increased stream temperatures if harvesting is conducted in accordance with existing forest practice rules.

Harvesting on Private Lands - In general, the number of timber harvest plans (THPs) submitted annually to CDF for private lands have decreased over the past several years. However, many of the THPs submitted are for very large acreages (some over 2000 acres) so that the total harvested volume has not dramatically decreased on private lands. For informational purposes and to further delineate the differences between the federal and non-federal timber harvest processes, the non-federal Timber Harvest Plan (THP) process as operated through CDF is described herein (note the relatively short time frames for plan review, approval and completion):

- Once a THP is submitted to CDF, they assign a number to the THP and distribute copies to all state and federal reviewing agencies (Regional Board staff pre-screens the submittals at this time to decide which THPs will be pre-harvest inspected). A Notice of Intent (to harvest) is then sent to landowners within 300 feet of the THP and the office of the county clerk. A Notice of Submission is subsequently sent to anyone who has requested in writing, notification when a THP is submitted to CDF.

- A first (multi-agency review team) review of the THP is conducted to assess whether the THP conforms to the State Board of Forestry and Fire Protection (BOF) rules. Any incomplete applications are returned to the Registered Professional Forester (RPF) who prepared the THP. The RPF must answer any questions or concerns raised by the review team before the THP is processed any further.
- Once all review team concerns are clarified and the THP is deemed complete, it is officially “filed”. A Notice of Filing is sent to the person who submitted the THP, the office of the County Clerk, and to anyone who has requested in writing, notification of filed THPs.
- CDF schedules a Pre-Harvest Inspection to examine the proposed logging site within 10 days. A second review team meeting is held to discuss the Pre-Harvest Inspection reports and to finalize any recommendations or changes needed for the THP (Regional Board staff attends approximately 25 percent of these scheduled inspections)
- A 30-day public comment period starts upon completion of the Pre-Harvest Inspection. Frequently, the public comment period is extended if additional study is needed for a specific THP issue. CDF responds in writing to each public comment received.
- Final recommendations are then sent to the RPF for response (Regional Board staff pre-harvest recommendations are sent to CDF in report form). After the public comment period, the CDF Director, or his/her representative, has 15 days to approve or deny the THP. CDF prepares and mails a written response to each person or group who submits a public comment on a THP (and sends copies to all involved state and federal agencies). The Regional Board can appeal the THPs approval at this time by filing a “non-concurrence” letter. If the “non-concurrence” is unsuccessful, a “Head of Agency Appeal” may be filed by the State Water Board.
- Once a THP is approved the timber owner has three years, with two additional one-year extensions available, within which to complete operations. CDF will periodically inspect the logging operations to ensure compliance with the approved THP and all laws and regulations. Enforcement actions range from violation notices requiring corrective actions, assessment of civil penalties and fines, and even criminal proceedings through the court system. Action may also be taken against the licenses of the timber operator and the RPF on the operation.
- When a THP operation has been completed, the timber owner has the responsibility for submitting a completion report to CDF. CDF then inspects the area to certify that all rules were followed.

By contrast, the Emergency and Exemption process is much less complex and the time frames are much shorter. There are very specific rules in the Board of Forestry and Fire Protection’s Forest Practice Rules that determine what activities can and cannot take place under an Emergency or Exemption including; no new road construction or reconstruction, no tractor or heavy equipment operations on known slides or unstable areas etc. Emergencies are those related to the removal of merchantable trees downed or damaged during a fire or by severe bug infestation. Emergencies have a working time frame of 120 days with no extensions available. Exemptions cover a much wider array of timber activities, including fire-safe harvest within 150 feet of buildings, Christmas tree harvest, harvest of dead, dying or diseased trees and the

conversion of timberland to another use on less than 3 acres. Exemptions have a working time frame of 1 year from the date of acceptance by CDF.

Harvesting on USFS (federal) Lands - Current USFS timber harvest operations in the Central Valley Region consist primarily of timber sales and fuels reduction projects. Timber sales generally consist of commercial thinning (removal of smaller trees), plantation thinning, hazard tree removal along roadways and campground areas, and fire salvage operations (removal of merchantable timber from areas devastated by forest fires). Fuels reduction projects generally consist of mechanical mastication work, hand-clearing work (including thinning and piling), and controlled underburning. All timber harvesting related operations submitted to the Regional Board for coverage under the Waiver are individually screened relative to their potential threat to water quality.

Timber sales, fuels reduction projects and other timber harvesting type projects proposed on USFS lands must go through a National Environmental Policy Act (NEPA) review and approval process prior to implementation. Initially, USFS staff list proposed projects in the Forest-specific Schedule of Proposed Actions (SOPA). SOPAs are available on the web for public review and are also sent to the Regional Board and other interested parties on a quarterly basis. USFS staff also sends individual scoping notices to the Regional Board (and other interested parties) with maps and project descriptions for review. The USFS then prepares an Environmental Assessment (EA), Environmental Impact Statement (EIS), or a Categorical Exclusion (CE) document and requests agency and public comment on the proposed actions. After receiving comments, the USFS makes a decision to implement the project as proposed or with revisions. The EA and EIS documents may be appealed within the USFS process. CEs cannot be appealed, but can be litigated if the public is concerned with the projects proposed. CEs are required to have public participation during the planning stage of the project. CEs for fuels projects must include public participation and collaboration (with Fire Safe Councils and others).

Most of the timber harvest projects being implemented today on USFS lands in the Central Valley Region were approved through the EA or EIS processes under the Sierra Nevada Forest Plan Amendment, the Herger-Feinstein Quincy Library group Forest Recovery Act and the Northwest Forest Plan.

United States Environmental Protection Agency (USEPA) Certification - USFS “best management practices” (BMPs) are more stringent than the Forest Practice Rules and pursuant to Section 208 of the federal Clean Water Act. USEPA has approved the State Water Board’s certification of the USFS’s water quality management plan, and the State Water Board’s certification of the practices therein as “best management practices.” USEPA has not approved the State Water Board’s certification of the California Forest Practice Rules and administering processes for regulation of timber harvest activities on nonfederal lands in California.

WATER QUALITY ISSUES

Timber harvesting and associated activities can result in the discharge of sediment (earthen materials in the form of silt, sand, clay and rock), organic debris (slash, sawdust, and bark), and chemical pollutants (silvicultural pesticides and chemical dust suppressants). In addition, some studies have shown that logging can increase water temperature and cause an increase in peak stream flow. Sediment induced water quality impacts occur when earthen materials transported by surface or mass- wasting erosion enters a stream system. Several studies, including the Hillslope Monitoring Program generated by the BOF Monitoring Study Group, conclude that road construction and stream crossings account for the majority of sediment discharged from timber harvest operations. Operations conducted during the winter may have a greater potential to discharge sediment that can adversely impact water quality than those conducted during drier periods. The type of timber harvesting, i.e. tractor, cable or helicopter, and the silvicultural method can also affect the quantity of sediment and organic debris discharged. Chemical pollutants can be discharged via stormwater runoff from roads treated with oils or other dust suppressing materials and direct application or runoff from pesticides (herbicides) applied to eliminate or reduce non-commercial plant species competing with tree growth. Sediment is considered the pollutant that has the most potential to adversely impact water quality in forested watersheds within the Central Valley Region. Although there is potential for adverse temperature increase and increased pesticide concentrations resulting from timber harvesting activities, limited studies (in the Central Valley forested watersheds) indicate that sediment discharges are most likely to violate water quality standards. Sediment discharges in forested watersheds can also be the result of other human related activities including cattle grazing, hydroelectric power generation, residential development, non-timber related road construction and maintenance and off-road recreational activities. Sediment is also a naturally occurring constituent that can adversely impact water quality in the absence of human related land disturbance activities. Sediment discharges are highly variable in nature, both spatially and temporal, since they are generally associated with highly variable hydrologic events (rainfall and/or rapid snowmelt). These factors make it difficult (and in some instances impossible) to determine the source of sediment in receiving waters in forested watersheds or to determine whether a specific activity is causing a violation of Basin Plan narrative or numeric objectives.

Considering that the Central Valley contains more than one-half of the state's forested watersheds, very little data quantifying sediment concentrations or sediment related impacts exists. Monitoring and studies in the North Coast Region have indicated that logging can affect water quality and impair beneficial uses. However, geologic and hydrologic conditions in the North Coast Region are quite different. The slopes on which timber is harvested and roads constructed are not as steep, the soils are generally less erosive and rainfall is much less. The Sierra Nevada Ecosystem Project: Final Report to Congress, published in 1996 indicates that, despite difficulties associated with characterizing water quality in the Sierra Nevada, water quality in the region is thought to be good. The report also adds some comparison with respect to sediment yield with other areas: *"Compared to other parts of California and the United States, the Sierra Nevada overall has a relatively low sediment yield. A map of soil erodibility for California shows the absence of "very severe" ratings throughout the Sierra, except for*

areas of western Plumas and eastern Butte County and part of Yuba County, whereas such ratings are common in the Coast Range.” Historic timber operations (pre-1970) are known to have caused isolated water quality impacts. Current practices are more protective of the resources, but it is unknown whether today’s practices are always fully protective of water quality in the Sierras and Cascades. It is possible that the current shift in harvesting to more even-age management may result in short-term changes to local hydrology. However, the link to water quality from this is not well defined or documented.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The Regional Board adopted a negative declaration pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.) on 30 January 2003 with respect to Resolution R5-2003-0005. The CEQA regulations found in Title 14 California Code of Regulations (CCR) Section 15162 and 15163 specify the circumstances under which the Regional Board must prepare a subsequent or supplemental environmental document. This action to renew the waiver does not require preparation of a subsequent or supplemental environmental document pursuant to Title 14 CCR Sections 15162 or 15163. There is no evidence to indicate that substantial changes are proposed for the project, that substantial changes have occurred with respect to the circumstances of the project, or that there is new information of substantial importance with respect to the project, as described in Title 14 CCR Section 15162(a). The previous environmental documents described the potential environmental effects of timber harvest activities; such potential effects have not changed since adoption of the Waiver in 2003. The Regional Board does not approve timber harvest, only to regulate discharges of waste that are caused by such activities. The project, which is this conditional Waiver, contains conditions that, if complied with, will prevent significant impacts to waters of the state.

Cumulative Effects - The current Forest Practice Rules adopted by the State Board of Forestry and Fire Protection and administered by CDF require a cumulative impacts assessment for proposed THPs. These requirements are contained in the Board of Forestry (BOF) Technical Rule Addendum No. 2, and include a description of past and future projects in the affected “Watershed Assessment Area”, a detailed map of the proposed project, a map of the past (within the last ten years), present and reasonably foreseeable probable future projects on land owned or controlled by the timberland owner of the proposed project, silvicultural methods for each of those projects and identification of any known, continuing significant environmental problems caused by past projects. In addition, the Appendix to Technical Rule Addendum #2 sets forth specific factors to be considered in evaluating cumulative impacts including:

- Watershed resources
- Sediment effects
- Water temperature effects
- Organic debris effects
- Chemical contamination effects
- Peak flow effects

- Watercourse condition
- Soil productivity and others related to soil loss.
- Pools and riffles
- Large woody material
- Near-water vegetation
- Downed large woody debris
- Multi-story canopy
- Road density and others related to terrestrial wildlife needs.

CDF, as lead agency for approving timber harvesting in the state is required to comply with the CEQA, including the consideration of cumulative environmental effects. [See *e.g.*, *Ebbetts Pass Forest Watch v. Department of Forestry and Fire Protection et al.*, El Dorado County Super. Cot No. PC20020253 and *Calaveras County Super. Cog. No. CV28494*, Nov. 9, 2004 (upholding cumulative effects analysis of timber harvest plans by Sierra Pacific Industries).

One of the eligibility criteria for the Waiver requires the USFS to conduct a cumulative watershed effects (CWE) analysis and include specific measures needed to reduce the potential for CWE in the project. One of the methods utilized for evaluating CWE is the Equivalent Roaded Area (ERA) analysis. The ERA method relates the impacts expected from project activity to that expected from roads and then presents the information as the percentage of basin in roaded area. That percent is compared to a Threshold of Concern (TOC) identified for a particular watershed (usually 10-18%). If the threshold is approached or exceeded, then activities are reviewed to determine whether they should be modified or delayed, or whether existing conditions could be improved to lower the ERA values.

PRESENT WAIVER PROGRAM

The number of staff assigned to timber harvest review has not changed significantly since adoption of the Waiver in 2003. There are currently only 4.5 PYs allocated to the program that currently receives more than two thousand timber harvesting related proposals annually. Funding has been decreased by almost \$42,000 (0.5 PY) compared to last year's allocation. A Budget Change Proposal (BCP) approved by the State Water Board and Cal/EPA allocated an additional 4.4 PYs to this Region through a redirection from the North Coast Regional Board's timber program. The Regional Board recently received authorization to fill one of these positions and "overspend" the Board's timber harvest allocation. Although recruitment for this position is underway, staff has received no assurance from the State Water Board that the Regional Board will receive the additional funding from Region 1 or other sources to cover this position in subsequent fiscal years. The transfer of the remaining 3.4 PYs may not occur for some time. Despite the severe resource shortage, staff assigned to the Region's timber program has been diligently working to assure compliance with the Waiver and to maximize staff's efforts to protect water quality from timber related discharges. The following is a summary of Timber Waiver related activities presently performed by staff:

- Waiver processing for private lands
- Pre-harvest inspections on private lands (141 conducted in 2004))
- Waiver processing for federal lands
- Pre-sale inspections on federal lands (11 conducted in 2004))
- Participation in CDF THP review process (including PHI inspections)
- Waiver compliance inspections (88 conducted in 2004)
- Limited water quality monitoring and GIS system startup
- Participation in BOF committees and rule making process
- Coordination with SWRCB, CDF and other Regional Boards
- Outreach to industry and watershed groups

WAIVER EFFECTIVENESS

Staff has determined that the Waiver, as adopted, provides an effective regulatory mechanism to regulate timber harvest activities within the Region. The Waiver allows staff to pursue a “proactive approach” and focus on the pre-harvest review and follow-up of the most critical timber harvest proposals. Staff pre-screens THPs and USFS projects and selects those that require an inspection before the project receives final approval from CDF or the USFS. Specific Waiver conditions (for private lands) require the discharger to agree to implement additional management measures resulting from staff’s participation in the pre-harvest inspection or the conditional waiver for the THP will not be granted. This is currently applied to 25-30 percent of THPs submitted on private lands and includes most of the high threat proposed timber operations. The remaining THPs and notices (70-75 %) must still comply with all specific criteria and conditions specified in the Waiver including the following Eligibility Criteria:

“The approved plan:

Incorporates any additional management practices and/or water quality protective measures (beyond the requirements of the current Forest Practice Rules) to address, at a minimum, the conditions described in Part II.D.1.a and b., above, winter period operations between October 15 and May 1, and cumulative watershed effects to assure compliance with the requirements of all applicable water quality control plans. Incorporates any and all project modifications and mitigation measures recommended by the biological scientist to avoid adverse impacts to rare, threatened or endangered species.”

And the following Condition:

“The Regional Board receives: (1) a copy of an approved Plan that meets the eligibility criteria in Part IID.1.a.through c.; and (2) a Certification Notice signed by the landowner stating that the approved Plan accurately represents site conditions, and that reasonable implementation of the approved Plan will assure compliance with Waiver Category 4, received at least 30 days prior to the start of timber operations.”

The requirement that the discharger must implement additional management measures determined during a staff attended pre-harvest inspection or in accordance with specific criteria and conditions has resulted in improved timber harvest plan submittals. Of the 70 to 80 THPs pre-harvest inspected by staff in calendar year 2004, most included significant modifications that reduced their potential to discharge sediment that would not have occurred without the Waiver. Examples of such modifications include (see Enclosure 1 for a specific example):

- Rerouting or elimination of access roads
- Elimination or improvement of watercourse crossings
- Modification of harvesting method
- Avoidance of unstable areas
- Elimination of heavy equipment in many areas
- Increased soil stabilization efforts
- Increased watercourse protection zones (buffers)
- Rocking or paving of major access roads
- Removal of risky areas from any harvesting
- Elimination or restriction of winter operations
- Elimination or improvement of roads and landings
- Increased protection for wet areas, wet meadows, springs and seeps.

For timber harvest proposals (THPs and Emergency Notices) not pre-harvest inspected by staff there have been documented improvements (implementation of additional management measures) in submittals approved by CDF including (see Enclosures 2 and 3 for specific examples):

- Increased use of helicopter logging
- Increased stabilization of slopes
- Rocking of access roads
- Increased Class III watercourse protection
- Improvement of watercourse crossing mitigation measures
- Increased protection of domestic water supplies and supply-lines.

These improvements (implementation of additional management measures) are, in general, in excess of the requirements in the Forest Practice Rules and are a result of implementation of the Waiver. These additional measures are also proactive in that they provide for a reduction in the sediment generating potential of the proposed timber harvest activity.

The efficiency afforded staff in regulating timber harvesting under the Waiver program is quite evident as staff can focus available time on the most critical timber proposals and allow specific Waiver criteria and conditions to be applied to the remainder. Regional Board staff will continue to randomly spot check and inspect active timber operations (not pre-harvest inspected) to assure Waiver compliance. The industry is well aware that a conditional waiver will be terminated for any timber operation that fails to comply with the specific criteria and conditions in the Waiver.

The application of individual monitoring to all timber harvest proposals (as discussed later in this staff report) will further secure the effectiveness of the Waiver as a regulatory mechanism.

The allegations made before this Regional Board (at the various workshops and hearings), before the State Water Board (during the petition review process) and now before the superior court (EPIC, Deltakeeper et al vs. CVRWQCB, LRWQCB and SWRCB) that timber harvesting is best regulated by individual or general WDRs are not supported by evidence. The adoption of individual WDRs or the issuance of general WDRs for more than two thousand timber harvest projects annually would require staff to switch to a “reactive approach” with respect to regulating waste discharges associated with timber harvesting. Staff, because of the formal requirements of WDR issuance, would be required to spend considerable time processing reports of waste discharge, preparing and circulating a CEQA document and tentative WDRs for comment and finally issuing adopted WDRs for the 2000 or so timber proposals submitted annually. For the many timber harvest proposals that are short term in nature (120 days for CDF Emergency Notices for example) the issuance of WDRs may take longer than the actual timber harvesting activity and the timber harvesting could go forward without WDRs. The processing requirements of WDR issuance would definitely curtail staff’s ability to conduct pre-harvest inspections and the result would be little, if any, “proactive” protection of water quality. Adoption of WDRs would change the program from one where management practices are actively examined and evaluated in the field to one that is administered from the office.

Individual or general WDRs would contain language similar to the Waiver requiring that discharges associated with timber comply with all applicable Basin Plan requirements. WDRs could also require compliance with a monitoring and reporting program as staff is proposing for renewal of the Waiver. However, required implementation of certain management measures as specified in the various Waiver categories or as determined during staff-attended pre-harvest inspections could **not** be included in individual or general WDRs as CWC Section 13360 states:

“No waste discharge requirement...may specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement...and the person so ordered shall be permitted to comply with the order in any lawful manner.”

The sole use of WDRs to regulate waste discharges from timber harvesting would preclude the ability to require implementation of specific management measures available in the Waiver. Staff will continue to consider the use of individual or general WDRs for those timber operations that chose not to enroll in the Waiver or where staff finds that the issuance of WDRs is appropriate. Staff has drafted general WDRs for use in these instances and will recommend the Regional Board consider their adoption when necessary.

Enforcement of a waiver and WDRs is essentially the same under the California Water Code. Violations of Waiver criteria and conditions and the requirements of WDRs are enforced pursuant to CWC section 13350, which authorizes the Regional Board to assess administrative civil liability. In either case, the Regional Board may issue cleanup and abatement orders to address discharges or threatened discharges of waste to waters of the state. Staff has also found

that the mere threat of Waiver termination has been effective in obtaining full agreement during pre-harvest inspections to implement necessary management measures.

EXISTING MONITORING EFFORTS

CDF, the USFS and several timber companies are actively conducting monitoring to determine the water quality and watershed effects of existing and past timber harvesting. The Regional Board staff has conducted sporadic monitoring of timber operations, but due to a lack of resources this has been very infrequent. The Regional Board's SWAMP monitoring program has funded some third party monitoring of watersheds that have some form of timber harvesting, most of this effort is focused on surface waters in the "valley" or "below the reservoir level." Considering the number and extent of valuable surface waters in the Sierras, Cascade and Coast mountain ranges in the Central Valley Region the existing level of monitoring is far from comprehensive. Following is a summary of active field level monitoring programs that focus on hillslope conditions, instream conditions and water quality impacts from timber harvesting.

CDF and the USFS are conducting agency sponsored monitoring as follows:

- USFS, Pacific Southwest Research Station, Kings River – Monitoring of forest ecosystems (SWRCB Proposition 50)
- BOF – Monitoring Study Group - Hillslope Monitoring Program and Interagency Mitigation Monitoring Program
- USFS – BMP Evaluation Program (each National Forest)
- USFS – Stream bioassessment and physical habitat monitoring (each National Forest)
- USFS – Aquatic and riparian effectiveness monitoring (watershed scale) conducted under the Northwest Forest Plan.
- USFS – Pesticide monitoring at selected application sites.

Industry sponsored monitoring is being conducted as follows;

- Sierra Pacific Industries – Water column monitoring at Judd Creek and Howard Springs Creek (Tehama County), San Antonio Creek (Calaveras County)
- W.M. Beaty – Fire salvage monitoring (Shasta County)
- Roseburg – Water column monitoring at various sites (Shasta County)
- Hearst Corporation – Monitoring associated with their Programmatic Timber EIR.

In addition, hillslope effectiveness and/or water column monitoring is being conducted in several streams in the Sierras, Cascades and Coast Range by local watershed groups, by university researchers (Lee H. MacDonald, Colorado State University (funded by the USFS) and sporadically (as resources allow) by Regional Board timber harvest staff.

TIMBER HARVEST MONITORING ISSUES

The Waiver (Attachment A) as adopted by the Regional Board in January 2003 included a condition that allows staff (Executive Officer) to require compliance with a monitoring program on a case-by-case basis. The Waiver further defined monitoring to include all types of monitoring undertaken in connection with determining water quality conditions and factors that may affect water quality including instream monitoring, watershed trend monitoring, active inspections, hillslope and effectiveness monitoring and project completion inspections.

CWC Section 13269 was amended in 2004 to require that new or renewed waivers include individual, group, or watershed-based monitoring unless the Regional Board waives that requirement for discharges that do not pose a significant threat to water quality. CWC Section 13269 (a)(2) and (3) state in part;

“(2) The conditions of the waiver shall include, but not be limited to, the performance of individual, group, or watershed-based, monitoring except as provided in paragraph (3). Monitoring requirements shall be designed to support the development and implementation of the waiver program including, but not limited to, verifying the adequacy and effectiveness of the waiver’s conditions. In establishing monitoring requirements, the regional board may consider the volume, duration, frequency, and constituents of the discharge; the extent and type of existing monitoring activities, including, but not limited to, existing watershed-based, compliance and effectiveness monitoring efforts; the size of the project area; and other relevant factors. Monitoring results shall be made available to the public”.

“(3) The state board or a regional board may waive the monitoring requirements described in this subdivision for discharges that it determines do not pose a significant threat to water quality”.

Resolution R5-2005-0004, adopted by the Regional Board in January 2005, extended the termination date in the Waiver to 30 June 2005 and directed staff to schedule a hearing in April 2005 to consider Waiver renewal that fully complies with CWC Section 13269. The Monitoring and Reporting Conditions (Attachment B) and the proposed Monitoring and Reporting Program (both discussed later in this report) satisfy the requirements of Section 13269.

Development of Monitoring Conditions – The development of Waiver monitoring and reporting conditions (requirements) focused on the necessity and appropriateness of the data collected. By defining what is to be documented through data collection and observations, appropriate monitoring efforts can be directed towards answering specific questions. The necessity of conducting monitoring for a specific timber harvest project or groups of projects within a given watershed is tempered with the feasibility of conducting the monitoring. There are many areas in Central Valley forested watersheds with limited access (no winter passable roads), rugged steep terrain or dangerous streamflow conditions that limit or restrict the possibility of conducting monitoring whether it be actual water quality sample collection or visual inspection of management measures. Appropriate timing of water quality sample collection is complicated by the variability of rainfall and snowmelt patterns, with many streams exhibiting very steep runoff hydrographs. Even the placement of recording water quality monitoring stations is affected and limited by access, terrain and streamflow conditions.

Staff has (for the past two years) actively participated in a Monitoring Work Group (CDF, State Water Board, RWQCBs, and California geological Survey) charged with developing a monitoring memorandum of understanding (MOU) to provide consistency in the application of monitoring requirements for timber operations on private lands. The directive to develop a monitoring MOU was in response to the adopted general regulatory MOU between CDF, the State Water Board and the Regional Boards. The Work Group developed and approved a final draft report on monitoring terms and authorities but did not reach consensus regarding monitoring implementation (the Regional Boards felt that monitoring implementation should be determined by individual waiver or WDR programs). Staff also conducted a literature review of papers and reports regarding monitoring of forested watersheds and also reviewed monitoring programs and proposals developed by the North Coast and Central Coast Regional Boards associated with their respective timber harvest regulatory programs.

Monitoring Types - The terms and monitoring types defined in the MOU Monitoring Work Group final draft report form the basis of the proposed monitoring and reporting conditions listed in Attachment B and the monitoring requirements specified in the draft Monitoring and Reporting Program For Individual Dischargers. Following is a description of the “field verification” monitoring types and their consideration for use relative to the regulatory questions being asked by staff:

Agency Monitoring – Each timber harvest activity conducted pursuant to approval by CDF and the Forest Service are subject to compliance monitoring conducted by CDF on private lands and the Forest Service on federal lands to evaluate compliance with Forest Practice Rules or USFS best management practices (BMP) guidance documents. CDF and the Forest Service have been asked to notify the Regional Board when Agency Monitoring detects violation of CDF rules or Forest Service BMP requirements that relate to water quality protection measures.

The question staff is trying to answer through Agency Monitoring is:

- Are **minor** timber harvest activities on private and federal lands being carried out as planned and in accordance with Waiver, CDF and Forest Service requirements?

Implementation Monitoring - Implementation Monitoring consists of detailed visual monitoring of harvested areas prior to the rainy season, with emphasis placed on determining if management measures (erosion control measures, riparian buffers), including Forest Service BMPs, were implemented or installed in accordance with approved timber harvest plans, exemptions/emergencies, Forest Service sales/project approvals and waiver eligibility criteria and whether such measures require maintenance or repair following storm events. Implementation Monitoring may include photo-documentation of implemented or installed management measures (photo-point monitoring). Implementation Monitoring is essential to assure that water quality protection measures are in place prior to the onset of significant precipitation. Implementation Monitoring is applied at the project scale. Implementation Monitoring is

conducted by the discharger and by regulatory agencies during compliance or completion inspections.

The questions staff is trying to answer through Implementation Monitoring are:

- Are timber harvest activities being carried out as planned and in full compliance with Waiver criteria and conditions?
- Are management practices being implemented as designed?

Effectiveness Monitoring – Effectiveness Monitoring consists of monitoring subsequent to harvest to evaluate whether particular management measures are or were effective at achieving desired results, including evaluating management measures to comply with water quality control plans. Effectiveness Monitoring may be applied at a range of spatial scales, focusing on specific management measures for multiple rainfall events or multiple years. Effectiveness Monitoring may include hillslope monitoring (measurements outside of the stream or stream channel i.e. on the harvested slopes) or instream monitoring (evaluation of instream conditions). Effectiveness Monitoring is applied at the project scale. Effectiveness Monitoring is generally conducted by the discharger and by regulatory agencies during site inspections and associated with monitoring programs designed to evaluate regulatory rule effectiveness.

The question staff is trying to answer through Effectiveness Monitoring is:

- Are the implemented management measures effective at achieving desired results?

Forensic Monitoring - Forensic Monitoring employs visual field detection techniques and/or water quality grab samples to detect significant pollution caused by failed management measures, failure to implement necessary measures, legacy timber activities, non-timber related land disturbances and natural sources. Forensic Monitoring may also include photo-point monitoring to document pollution sources. Forensic Monitoring is most successful when criteria such as storm events of particular size or instream sample results are used to trigger field investigations for timely detection and repair of controllable sediment sources. Forensic Monitoring is typically applied at the sub-watershed or project scale. Forensic Monitoring is generally conducted by the discharger and by agencies during periodic compliance inspections.

The questions we are trying to answer through Forensic Monitoring are:

- Are significant pollutant discharges (e.g., turbidity and sediment) visually detectable?
- Are there significant pollutant discharges resulting from timber harvest activities (e.g., failed management measures) that require timely remedial action to prevent impacts to water quality and beneficial uses?
- Are turbidity and/or sediment being transported (eroded) from the timber harvest area into waters of the State?

Water Quality Compliance Monitoring – Water Quality Compliance Monitoring employs water column sampling to determine whether waste discharges (sediment, turbidity, temperature and pesticide concentrations) from timber harvest activities are in compliance with water quality control plan (Basin Plan) standards. In most instances, it is necessary to collect pre-project data and/or establish reference or control sites to make compliance monitoring successful. Water Quality Compliance Monitoring is typically applied at the sub-watershed or project scale focusing on the effects of a single project for a period greater than the active life of the project. Water Quality Compliance Monitoring is generally the responsibility of the discharger but may be conducted by regulatory agencies in response to complaints or follow-up to detected violations.

The questions staff is trying to answer through Water Quality Compliance Monitoring by instream sample collection are:

- Are timber harvest activities impacting water temperatures and are Basin Plan temperature objectives being violated?
- Are timber harvest activities impacting water clarity and are Basin Plan turbidity or narrative sediment objectives being violated?

Assessment and Trend Monitoring – Assessment Monitoring is used to characterize existing water quality or related stream conditions on a watershed scale at a discrete instant or over a defined time period. Examples include monitoring to determine reference or baseline conditions, determine existing beneficial uses, provide information for cumulative watershed effects analyses in order to develop mitigation measures for THPs or other projects in a given watershed, and provide information to select sites for restoration and/or remedial work to improve water quality.

Trend Monitoring is used to characterize water quality conditions over time. Trend Monitoring is typically applied at a watershed scale, focusing on the combined effects of all past and present watershed management activities over a period of time. Examples of Trend Monitoring objectives include: characterize watershed conditions resulting from combined effects of land use activities over time, determine whether Basin Plan water quality objectives are achieved and maintained over time and, in impaired waterbodies, assist in restoration or remedial work to maximize benefits to water quality. Assessment and Trend Monitoring efforts are the most intensive and costly monitoring types and the monitoring, to be scientifically valid, must occur over a long period of time and take into account all waste sources and natural inputs in the watershed. Assessment and Trend Monitoring is usually conducted by the discharger but may, in rare instances and when funds are available, be conducted by regulatory agencies.

The questions staff is trying to answer through Assessment/Trend Monitoring are:

- Are discharges from timber activities both past and present coupled with discharges from other land-use activities within a given watershed or sub-watershed causing an exceedence of Basin Plan water quality objectives?

- Are waste discharges from timber activities, both past and present, coupled with discharges from other land use activities resulting in instream conditions that adversely affect designated beneficial?

WAIVER ENROLLMENT FEES

The recent revision of CWC Section 13269 includes language that allows the state or regional board to include payment of an annual fee as a condition of a waiver. The fee schedule is to be established by the State Water Board in accordance with Section 13260 (f). The State Water Board has not established an annual fee schedule for timber harvest waivers and does not appear to be proposing such schedule in the next several months. The collection of annual fees could provide additional staff resources in the Region's timber harvest regulatory program providing new positions are approved by the Administration and the collected fees are available for expenditure after appropriation by the Legislature. The proposed Resolution provides for the automatic collection of annual fees as soon as a fee schedule is established for timber harvest related activities. The collection of annual fees would occur if WDRs were issued to all proposed timber harvest activities, but the utilization of these fees for staff resources would still be dependent upon Administration approval.

PROPOSED RESOLUTION

The proposed Resolution lays the framework for the Waiver (Attachment A), the proposed Monitoring and Reporting Conditions (Attachment B) and the proposed Implementation, Effectiveness and Forensic Monitoring and Reporting Program. The Resolution contains findings and resolutions of the Regional Board approving the attached Waiver, Monitoring and Reporting Conditions and Monitoring and Reporting Program, including findings relative to CEQA and the possible collection of enrollment fees.

REVISIONS TO WAIVER (ATTACHMENT A)

Staff is proposing to continue the existing waiver process (as adopted in January 2003). The specific eligibility criteria and conditions remain the same with the following exceptions:

- Additional minor timber harvest activities were added to Category 1, Eligibility Criteria "a." to be consistent with the Forest Practice Rules.
- A new Condition c. was added to Category 1 requiring compliance with the proposed Monitoring and Reporting Conditions (Attachment B) and stating that "Agency Monitoring" will be required for this category.
- The condition requiring compliance with a monitoring program when directed by the Executive Officer for Categories 2, 3, and 4 has been replaced with a new condition

requiring compliance Monitoring and Reporting Conditions (Attachment B) and the proposed Implementation, Effectiveness and Forensic MRP. The new condition also requires compliance additional monitoring and reporting requirements (water quality compliance and/or assessment and trend monitoring) when directed by the Executive Officer.

- The condition requiring USFS submittal of a monitoring program when a “threshold of concern” has been exceeded based upon various USFS model analysis was replaced with a condition requiring compliance with the proposed Implementation, Effectiveness and Forensic MRP. The new condition allows the USFS to conduct “implementation monitoring” for all USFS timber harvest projects except where a “threshold of concern” is exceeded. Where a “threshold of concern” is exceeded, “forensic” and “effectiveness” monitoring is required.
- A new section “Termination of Coverage” was added to replace the “final certification” requirement for Categories 2, 3, 4 and 5.

The basic requirement or premise of the Waiver (Attachment A), is that timber activities be conducted according to CDF and USFS regulations **and** include additional management and water quality protection measures necessary to assure full compliance with applicable Basin Plan requirements. This basic requirement is not affected by the proposed changes.

PROPOSED MONITORING AND REPORTING CONDITIONS (ATTACHMENT B)

Attachment B was developed by staff to provide a regulatory approach to timber harvest activity monitoring that takes into account the need to maximize protection of water quality, verifying the effectiveness of the Waiver and statutory requirements of CWC Section 13269. Attachment A also was drafted to reflect the agreement reached between the various Regional Boards, the State Water Board and CDF during the “Monitoring Work Group MOU” process. Lastly, the Waiver was drafted to provide some degree of consistency between other Regional Boards that have recently adopted new timber waiver and monitoring programs.

Attachment B references the monitoring types discussed above plus a brief discussion “waiver compliance monitoring” that has been in place and required of all enrollees since initial adoption of the Waiver in January 2003. The “final certification” required in existing Attachment A constitutes a form of monitoring that targets the dischargers overall compliance with specific waiver criteria and conditions and compliance with applicable Basin Plan requirements. The “Termination of Coverage” section in the revised Attachment A provides the same level of compliance monitoring.

Monitoring Criteria – Attachment B contains general monitoring criteria applicable to all Waiver enrollees. The section discussing threat to water quality was taken from the “Monitoring Workgroup” report and describes how the threat to water quality from a proposed timber

operation is affected by site-specific characteristics. The section discussing water column monitoring suitability likewise was taken from the “Monitoring Workgroup” report and discusses some of the limitations inherent in water column monitoring (monitoring of stormwater related discharges under harsh conditions in hard to access areas).

Attachment B includes a condition requiring the development and submittal of a “Watercourse Assessment” for all proposed activities where previous timber harvest activity in a Class I watershed over the past ten years exceed the following criteria¹:

- 50 percent of the watershed area harvested and even-aged management prescriptions are greater than 10 percent but are less than 25 percent of the watershed area.
- 40 percent of the watershed area harvested and even-aged management prescriptions exceed 25 percent but are less than 50 percent of the watershed area.
- 30 percent of the watershed area harvested and even-aged management prescriptions exceed 50 percent of the watershed area.

This condition was included to provide staff with a site-specific stream (watercourse) evaluation where there is extensive timber harvesting within a given watershed. The watercourse evaluation must include documentation of the condition of all Class I and Class II watercourses in the watershed, both upstream and downstream of the proposed timber harvest area. The conditions related to gravel embeddedness, pool sedimentation, stream channel aggradation, streambank cutting, mass wasting and downcutting, streamside vegetation and recent flood history must be evaluated and photo-documented and included in a report submitted to the Executive Officer. This evaluation report will assist staff in determining whether additional monitoring (beyond implementation, effectiveness and forensic monitoring) is required. Additional monitoring will generally consist of either water quality compliance or assessment/trend monitoring (or both) which will be incorporated into an individual, site-specific MRPs issued by the Executive Officer.

Monitoring Conditions – Attachment B includes several monitoring conditions that dictate the type of monitoring required of each timber harvest activity enrolled in the Waiver. These conditions are:

- *Agency Monitoring* will be required for all proposed timber harvest activities subject to the Waiver. Dischargers (enrollees) in Waiver Category 1 (private lands) and Category 5 (USFS minor/exempt) will only be subject to Agency Monitoring unless otherwise directed by the Executive Officer.
- *Implementation Monitoring* will be required of all proposed timber harvest activities enrolled under Categories 2, 3, 4, and 5 (except USFS minor/exempt projects).

¹ The 30, 40, and 50 percent criteria cited above and in Attachment B was derived from recommendations included in the *Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat* prepared for Resources Agency and National Marine Fisheries Service by The Scientific Review Panel created under a 1998 MOU between these agencies.

Implementation photo-point monitoring will also be required when conditions listed in Attachment A, Category 4, Eligibility Criteria b. are present. (Agency and Implementation Monitoring is considered the baseline level of monitoring and is required of all but the most minor timber harvest projects)

- *Effectiveness and Forensic Monitoring* will be required (in addition to Agency and Implementation Monitoring) for all timber harvest activities in Categories 2, 3, and 4 with the following exception. Timber harvest activities in these categories that meet certain criteria will not be required to conduct Effectiveness and Forensic Monitoring. (Page 6 item C. of Attachment B):

Timber harvest activities conducted by the USFS on federal lands will not be required to conduct Effectiveness and Forensic Monitoring if the USFS cumulative watershed effects analysis indicates the project will not cause any watershed to exceed a “threshold of concern.” Effectiveness and Forensic Monitoring will also be required when a discharger and/or his agents have demonstrated a history of poor compliance with Forest Practice Rules or Waiver criteria and conditions.

- *Water Quality Compliance Monitoring* will be required (in addition to the above monitoring), and upon notice by the Executive Officer, when any of the following conditions are detected or reported:
 - Significant failure of an active project to comply with CDF Forest Practice Rules or USFS BMP guidance documents regarding implementation of management measures relating to water quality protection.
 - Significant failure of an active project to comply with Timber Waiver criteria or conditions.
 - Significant failure of management measures relating to water quality protection due to improper implementation, installation or inadequate maintenance.
 - Identification of discharges or threatened discharges of sediment and/or pesticides or increases in water temperature resulting from timber harvest activities covered under the Waiver that are likely to cause or contribute to a violation of the applicable water quality control plan, including water quality objectives listed in Attachment A.

Note: The Executive Officer may increase the monitoring level for specific harvest proposals

- *Assessment and/or Trend Monitoring* will be required (in addition to Implementation, Effectiveness and Forensic Monitoring and in concert with or in lieu of Water quality Compliance Monitoring), upon notice by the Executive Officer, when any of the following conditions occur:
 - Significant violations, on a recurring basis, of sediment, turbidity, temperature or pesticide water quality control plan objectives in a Class I watershed.

- Identification of an immediate and long-term threat to critical downstream beneficial uses resulting from timber harvest activities conducted over the past 10 years.
- Harvesting in areas tributary to 303(d) listed waterbodies where activities threaten to cause an increase in constituents for which the waterbody was listed.

Assessment and/or Trend Monitoring may also be directed by the Executive Officer as a result of staff review of a Watercourse Assessment for “High Harvest” Watersheds.

Reporting Requirements – Attachment B requires that the discharger submit all data in accordance as specified in the applicable MRP. The discharger shall also report, in a timely manner, all data associated with monitoring conducted independent of the Waiver. The discharger is required to report as soon as possible, but no later than 48 hours after detection, any Basin Plan violations, failure of major management measures, new landslide activity and any violations of eligibility criteria or conditions specified in Attachment A. A written report describing such violations or failure shall be submitted within 14 days.

The above criteria and conditions as specified in Attachment B were developed to afford some flexibility for staff yet require certain levels of monitoring commensurate with the overall risk of the timber harvest activity to water quality.

The proposed Attachment B and the draft Implementation, Effectiveness and Forensic Monitoring and Reporting Program is consistent with the regulatory approach employed in two other regional water quality control boards with significant timber harvest activity, the North Coast and Central Coast Regional Boards. The other regional board with significant timber harvesting activity, the Lahontan Regional Board, has yet to develop specific monitoring conditions or criteria. Implementation, Effectiveness and Forensic Monitoring is required for most timber harvest proposals (THPs) on private lands in the North and Central Coast Regional Boards. Water Quality Compliance Monitoring is required only upon directive by the Executive Officer in the North Coast Region and only when certain watershed and timber harvest criteria is met in the Central Coast Region. Proposed Attachment B does require monitoring for Forest Service timber activities above that required by the North Coast Region (the Forest Service does not conduct timber harvest operations in the Central Coast Region). The consistency between the Regional Board’s timber monitoring requirements offers the regulated community a “level playing field” with respects to monitoring costs.

PROPOSED MONITORING AND REPORTING PROGRAM

Staff has included in the agenda package for this item a draft Implementation, Effectiveness and Forensic MRP. This MRP if adopted will be forwarded to all timber harvest proposals upon enrollment in the Waiver. The MRP is flexible in that a discharger needs to comply only with the section of the MRP that is applicable to the proposed timber harvest activity. Applicability (as discussed above) is determined by the specific criteria and conditions contained in the Attachment B (Monitoring and Reporting Conditions). Following is a brief description of elements of the proposed draft MRP:

Inspection Plan - The draft MRP requires the discharger to prepare and implement an Inspection Plan that includes a site map that depicts monitoring points (inspection locations) for both visual monitoring and photo-point monitoring. Requirements for photo-point monitoring are described including required delineated of photo-points in the field by some form of permanent marking. The Inspection Plan shall be maintained and updated as needed and shall be submitted to the Regional Board upon request.

Site Inspections – This section of the draft MRP describes, separately, the requirements for conducting Implementation, Effectiveness and Forensic Monitoring. The section provides that, for Implementation Monitoring, a “final compliance” or “work completion report” inspection conducted by CDF **prior to the winter period** and after cessation of active harvesting and road construction may be substituted for the required pre-winter inspection. Forensic Monitoring conducted **during the winter period** shall be designed to detect significant pollution (sediment) sources, man-made or natural. The discharger is required to perform visual monitoring of roads, crossings, landings, skid trails and landslides to the extent feasible when conducting forensic inspections. Photo-point monitoring is required when certain conditions are encountered. Effectiveness Monitoring conducted **after the winter period** shall be designed to determine whether hillslope conditions are resulting in instream conditions that appear to comply with water quality objectives and whether timber waiver criteria and conditions, on a programmatic scale, are adequately protecting water quality and instream beneficial uses. This section also requires that site inspections be conducted by qualified professionals who’s name(s) and telephone numbers be listed in the inspection plan and in submitted reports.

Inspection Schedule – This section of the MRP specifies the time frames for conducting the various types of monitoring inspections. Implementation inspections shall be conducted by **November 15 of each year** where winter operations are not proposed and twice, once by **November 15** and once **immediately following winter period operations** where winter operations are conducted.

Forensic Monitoring inspections shall be conducted once, **during or within 12 hours following a 24-hour storm event of at least 2 inches of rainfall** after the accumulation of at least 10 inches of rainfall for the season. A second Forensic inspection is required under the same

rainfall scenario, but after 20 inches of precipitation has fallen for the season. Photo-point monitoring must be conducted when the following forensic “observation triggers” occur:

- A noticeable discharge of sediment (turbidity) is observed, at any time, in any Class I or Class II watercourse.
- Detection of failed management measure or measures that caused or may cause the release of 10 cubic yards or more of sediment to watercourses.

Follow-up Forensic inspections shall be conducted when failed management measures result in significant sediment discharge and shall continue until the problem is corrected.

Effectiveness monitoring shall be conducted following the winter period to determine the effectiveness of management measures in controlling discharges of sediment. Effectiveness Monitoring inspections shall take place **after April 15 and before June 15**. Effectiveness inspections shall include both hillslope components (roads, landings, skid trails, crossings and unstable areas) and instream components (bank composition, bank stability, water clarity and instream sediment deposition).

Reporting – The discharger shall submit a summary monitoring report by July 15 for each year of Waiver coverage. The summary report shall include information regarding each inspection, including photographs, and shall describe how the discharger complied with the MRP requirements. The discharger shall also report as soon as possible, by telephone, but no later than 48 hours, after detection of any violation or suspected violation of Basin Plan requirements, failure of major management measures, any new landslide activity and violations of Waiver eligibility criteria and conditions. A written report is required to be submitted within 14 days.

SUMMARY

The existing Waiver (Attachment A) remains an effective regulatory mechanism that assists staff in the regulation of the thousands of timber harvest proposals conducted annually in the Central Valley Region. The proposed revisions to the Waiver (revised Attachment A), the addition of Monitoring and Reporting Conditions (Attachment B) and the proposed Implementation, Effectiveness and Forensic MRP combine to increase awareness of and compliance with the eligibility criteria and conditions in the waiver and provide compliance with the 2004 amendments to CWC Section 13269. Specifically Attachment A:

- Contains essentially the same eligibility criteria and conditions as before, in conformance with the Negative Declaration originally adopted in 2003.
- Provides a conditional waiver (a waiver that may be terminated for cause) that utilizes existing and well-staffed timber harvest regulatory programs administered by CDF and the USFS.
- Requires implementation of additional management measures (above and beyond CDF and USFS rules and BMP guidance) necessary to provide compliance with Basin Plan requirements.
- Offers a “proactive approach” to regulating the stormwater discharges associated with timber harvest activities, in other words, to require implementation of practices to prevent

discharges before they could happen rather than to react to discharges after the fact. This “proactive approach” allows staff to develop field recommendations to improve water quality protection and requires the discharger to do the same in staff’s absence.

- Eliminates the need to issue individual or general WDRs for well over a thousand timber harvest projects submitted annually in the Central valley Region.
- Avoids a “reactive approach” where staff must determine whether WDRs are violating receiving water limits as CWC Section 13360 prohibits WDRs from specifying the manner of compliance.
- Provides the same level of enforceability as WDRs, including the imposition of Administrative Civil Liabilities.
- Allows for the collection of appropriate annual fees once set by the State Water Board.

The adoption of the Monitoring and Reporting Conditions in Attachment B and the draft Implementation, Effectiveness and Forensic MRP:

- Establishes monitoring and reporting conditions that comply with CWC Section 13269.
- Establishes monitoring conditions that are consistent with inter-agency MOU efforts and consistent with monitoring conditions adopted by other Regional Boards.
- Emphasizes implementation and maintenance of management measures and BMPs.
- Provides for increased monitoring, including water column Compliance and Assessment/Trend Monitoring, when certain conditions are present or upon directive from the Executive Officer.
- Requires immediate reporting of violations (upon detection) of failed management measures.
- Provides rational reporting requirements that can be effectively and easily reviewed by staff.

RECOMMENDATION

Staff recommends, based upon the above discussion, adoption of the following:

- The proposed Resolution which renews the conditional waiver for five years
- The revised Waiver (Attachment A)
- The new Monitoring and Reporting Conditions (Attachment B)
- The draft Implementation, Effectiveness and Forensic Monitoring and Reporting Program.